

# Math 1215/Y/Z: Intermediate Algebra I, II, III

Summer 2021
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Online Office Hours via Zoom Mon & Wed
Remind App Code: 8b9768

Remind App Code: 8b97
Up to 3 Credit Hours

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#### COURSE DESCRIPTION

#### Math 1215 Y

Sect.	CRN	Class Time	Days	Location	MML Course Code
502	28523	9:00-11:30	M/W	Online	chavez82710

This 1-credit-hour course includes the second third of an Intermediate Algebra course including solving systems of linear equations, exponent rules, factoring polynomials, operations on polynomials and solving and graphing quadratics.

# **Student Learning Outcome/Course Objective**

In this course, we will explore systems of linear equations, polynomials and factoring, and linear functions.

Upon successful completion of the Math 1215Y course, students will be able to:

- A. Demonstrate appropriate use of basic function language and notation.
  - 1. Communicate or present mathematical concepts using correct mathematical notation and terminology.
- B. Convert between equivalent forms of algebraic expressions.
  - 1. Simplify expressions using properties of exponents.
  - 2. Add, subtract, and multiply polynomials.
  - 3. Factor some types of polynomials.
- C. Solve single-variable equations of the types listed above.
  - 1. Solve quadratic equations using factoring, quadratic formula, and the square root method.
- D. Interpret and communicate algebraic solutions graphically and numerically.
  - 1. Determine when linear equations represent parallel and perpendicular lines.
  - 2. Sketch graphs of quadratic functions.
- E. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
  - 1. Determine the three types of outcomes from a system of linear equations in the context of what the graphs look like (terminology about consistent/inconsistent or dependent/independent not emphasized)
  - 2. Determine a system of linear equations from an application problem and solve it if possible.
  - 3. Analyze solutions to application problems and give them contextual meaning.
- F. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
  - 1. Solve systems of two linear equations graphically and algebraically.
  - 2. Apply solution methods learned to application problems.

Sect. CRNClass TimeDaysLocationMML Course Code502285329:00-11:30M/WOnlinechavez40930

THIS 1-CREDIT-HOUR COURSE INCLUDES THE FINAL THIRD OF AN INTERMEDIATE ALGEBRA COURSE INCLUDING SIMPLIFYING RADICAL EXPRESSIONS INCLUDING THE USE OF RATIONAL EXPONENTS, SOLVING RADICAL EQUATIONS, SIMPLIFYING RATIONAL EXPRESSIONS, OPERATIONS ON RATIONAL EXPRESSIONS, SOLVING RATIONAL EQUATIONS, DEVELOPMENT OF THE CONCEPT OF FUNCTIONS, SOLVING ABSOLUTE VALUE EQUATIONS AND INEQUALITIES, AND AN INTRODUCTION TO EXPONENTIAL AND LOGARITHMIC FUNCTIONS.

# **Student Learning Outcome/Course Objective**

In this course, we will explore rational functions and radical functions, and we will introduce exponential and logarithmic functions.

Upon successful completion of the Math 1215Z course, students will be able to:

- A. Demonstrate appropriate use of basic function language and notation.
  - 1. Communicate or present mathematical concepts using correct mathematical notation and terminology.
  - 2. Correctly use function notation and vocabulary related to functions.
  - 3. Determine function values for given domain values and determine domain values for given function values.
  - 4. Determine domains for specific functions.
- B. Convert between equivalent forms of algebraic expressions.
  - 1. Simplify expressions using properties of exponents.
  - 2. Simplify rational expressions.
  - 3. Simplify radical expressions.
  - 4. Rewrite exponential functions in logarithmic form and vice versa.
- C. Solve single-variable equations of the types listed above.
  - 1. Solve equations containing rational expressions.
  - 2. Solve equations containing radical expressions.
  - 3. Solve absolute value equations in one variable.
  - 4. Solve exponential and logarithmic equations using equating bases.
- D. Interpret and communicate algebraic solutions graphically and numerically.
- E. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
  - 1. Analyze solutions to application problems and give them contextual meaning.
- F. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
  - 1. Perform operations with radical expressions.
  - 2. Perform operations with rational expressions.
  - 3. Solve absolute value inequalities in one variable.
  - 4. Apply solution methods learned to application problems.

Completing Math 1215X and 1215Y meets the prerequisites for Math 1110 and Math 1350. Completing all three (Math 1215X, 1215Y, and 1215Z) meets the prerequisites for Math 1220 and

some science classes. Completing all three, Math 1215X, 1215Y, and 1215Z meets the same learning objectives as Math 1215.

# Prerequisites and Co-requisites *Math 1215 X*

Appropriate placement score or a grade of C or better in Math 100 or Math 022 or ACT Math =>18 or SAT Math Section =>490 or ACCUPLACER Next-Generation Advanced Algebra and Functions =228-238, QRAS=253-300, Arithmetic=276-300 or B+ in Alg II and/or B- or B in Statistics or CRM and/or C or lower in Pre-calculus, Trigonometry, Calculus. Check with your adviser to make sure you meet the requirements.

 While MATH 1215X provides credit toward establishing a full-time load for financial aid purposes, this course does NOT satisfy UNM general education core course requirements.

#### Math 1215 Y

Prerequisite/Placement: A grade of C or better in Math 1215X.

 While MATH 1215Y provides credit toward establishing a full-time load for financial aid purposes, this course does NOT satisfy UNM general education core course requirements.

#### Math 1215 Z

Prerequisite/Placement: A grade of C or better in Math 1215Y.

 While MATH 1215Z provides credit toward establishing a full-time load for financial aid purposes, this course does NOT satisfy UNM general education core course requirements.

#### **TECHNICAL SKILLS**

To participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

- Use UNM Learn (help documentation located in the "How to Use Learn" link on the left course menu, and also at Online Student Documentation<sup>1</sup>). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask your instructor if you do not see the UNM-Valencia Blackboard Learn Jumpstart in your list of classes in UNM Learn.
- Use email including attaching files, opening files, downloading attachments
- Copy and paste within applications including Microsoft Office
- Open a hyperlink (click on a hyperlink to access a website or online resource)
- Use Microsoft Office applications
  - o Create, download, update, save and upload MS Word documents
  - o Download, annotate, save and upload PDF files
  - Access MS Teams
- Use the in-course web conferencing tool (Collaborate Web Conferencing software in UNM Learn) or use Zoom or another web conferencing tool
- Download and install an application or plugin required for participating in web conferencing sessions

# TECHNICAL REQUIREMENTS

#### Computer

• A high-speed Internet connection is highly recommended.

Last update: 07/15/20

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<sup>&</sup>lt;sup>1</sup> http://online.unm.edu/help/learn/students/

- Supported browsers include Chrome, Firefox, or Safari. Preferred operating systems are Windows or Apple.
- Any computer capable of running a recently updated web browser should be sufficient to
  access your online course. However, bear in mind that processor speed, amount of
  RAM, and Internet connection speed can greatly affect performance. Be aware, some
  programs that use mathematics will not work well on mobile devices such as
  smartphones or tablets.
- Microsoft Office products are available free for all UNM students (more information on the UNM IT Software Distribution and Downloads page<sup>2</sup>)
- Please update your contact information in Loboweb: MyUNM Login<sup>3</sup>. When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.
- Laptops may be available for checkout for the Fall semester from the <u>UNM-Valencia</u> <u>Library</u><sup>4</sup>. Contact the librarians for more information.

# Web Conferencing

Web conferencing will be used in this course for office hours and scheduled individual meetings For the online sessions, you will need:

- A USB headset with a microphone. Headsets are widely available at stores that sell electronics, at the UNM Bookstore or online.
- A high-speed internet connection is highly recommended for these sessions. A wireless Internet connection may be used if successfully tested for audio quality before web conferencing.
- You should also dress as you would when attending an in-person meeting, even if you do not turn on your video camera

# **Technical Support**

- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the "Create a Tech Support Ticket" link in your course.
- For UNM-Valencia IT Support: (505)925-8911
- For UNM Web Conference Technical Help: (505) 277-0857

# TEXTBOOK AND SUPPLEMENTAL MATERIALS

## **Required Textbooks:**

"Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella.

<u>Required:</u> Appropriate MyMathLab (MML) access code (do not purchase a generic code, in this case, the code is book specific). You may purchase the 18-week access code for a lower price, but you *cannot* upgrade to the lifetime code once you purchase the restricted one.

# Recommended and/or Optional:

Optional: You may "upgrade" your access by purchasing a hardcopy of the book directly from Pearson for an additional cost (between \$50 and \$60 before tax). There will be copies of the book on reserve for use in the library (you will not be able to take the book from the library home).

<sup>&</sup>lt;sup>2</sup> http://it.unm.edu/software/index.html

<sup>&</sup>lt;sup>3</sup> http://my.unm.edu/home

<sup>&</sup>lt;sup>4</sup> http://valencia.unm.edu/library/index.html

# **Specific Course Requirements**

Pearson account. If you have used any of the Pearson My Lab products before, you can use the same account you created the first time you used it. Otherwise, you can create an account when you register in MyMathLab (MML) for this class. Register by going to <a href="mayer-mymathlab.com">mymathlab.com</a>.

#### COURSEWORK AND PARTICIPATION

# **Instructor Response Time**

I routinely check the course for postings or emails, Monday (8 am) – Friday (noon), and sometimes on the weekend. You can anticipate a 24 to 48-hour response from me, Monday – Thursday. I will try and respond to all weekend (Friday afternoon to Sunday) emails and postings by noon on Monday or earlier. You may also text me through the Remind App and I will get in touch with you in 2-4 hours.

# **Procedures for Completing Coursework**

Include:

- Late work will lose 10% every week that they are late. If there is an issue, please discuss this with me.
- It is up to the student to discuss when you are ready for an exam. I will not call you. You must send me a text on Remind, email, or course message in Bb Learn.
- Students must complete all coursework before finals week. I will not allow you to take final if you are not completed with coursework.
- recommended:
  - if you are having trouble meeting a deadline, please discuss the issue with me a week before assignment is due. This will give us time to develop a plan to get you back on track.
  - All work must be submitted through Bb Learn. All Guided Notes and quizzes must be complete, legible, in order and in the correct orientation

# **Expectations for Participation**

Example Expectations:

- the time required (9-12 hrs per week)
- students are expected to learn how to navigate in Learn
- students are expected to communicate with one another in team projects
- students are expected to keep abreast of course announcements
- students are expected to use Bb Learn and discussion boards, course messages, etc.
- students are expected to use the Learn course email as opposed to a personal email address
- students are expected to keep the instructor informed of class-related problems or problems that may prevent the student from full participation
- students are expected to address technical problems immediately
- students are expected to observe course netiquette at all times

#### Netiquette

One of the overriding principles in online conversations is to "craft your responses effectively." It is sometimes difficult to remember that real people are reading posted messages. This is especially true of online communication where others do not have the opportunity to see body language or hear the tone of voice; therefore, misunderstandings are more likely.

Please, follow these guidelines in **all** of your online responses and discussion postings.

- Honor everyone's right to an opinion.
- Respect the right of each person to disagree with others.
- Respond honestly but thoughtfully and respectfully; use language that others will not consider foul or abusive. You may also use emoticons to convey a lighter tone.
- Respect your privacy and the privacy of others by not revealing information which you deem private and which you feel might embarrass you or others
- Be prepared to clarify statements that might be misunderstood or misinterpreted by others.

#### A Special Note about Anger

- Do not send messages that you have written when you are angry, even anonymous ones. In the
  online world, angry messages are known as "flaming" and are considered bad behavior. Venting
  and flaming are two different things. It is possible to vent without becoming "ugly." Stick to the
  facts of what is causing you frustration.
- Do not send messages that are written all in upper case; this is the visual equivalent of SHOUTING. It is considered aggressive and is considered bad behavior. If you ever feel like shouting a message, take a deep breath, and wait until you have calmed down before responding. Then, respond calmly and factually.

# How to complete your work for this class:

The course topics are split into 13 units among the three courses. Below is how you will progress through the material:

# Participation and Progress: Participation includes

- Attendance. You will schedule a time to meet with me weekly to go over your progress
  and set goals for completion. You are required to attend at least one Zoom Class once
  per week. If you cannot make the Zoom meeting, you must text, email, or course
  message me to set up another time. You must log-in to Blackboard Learn at least once a
  week. Important announcements and discussions will be posted at least once a week.
- Questions. Contact me through the discussion board, Ask my Instructor in MyMathLab,
   Zoom Meeting, or office hours with questions from the homework. You may also test me,
   but I may not be able to answer for a few hours. My job is to help you learn the material,
   I cannot do that unless I know where you are misunderstanding or "not getting it."
- <u>Show Progress.</u> Turn in Guided Notes and other assignments on time, ask questions from the Computational Assignments, earn a score of 85% on a Quiz to show you are ready for your next Unit.
- <u>Turn Work in by Due Date.</u> Ten points are available weekly for participation. You must log in to Blackboard Learn and MyMathLab and keep scheduled meetings to earn these points. You will turn in your guided notes for each unit before starting the next unit! These points cannot be made up. You need to work on this course throughout the week, so you can log your 9 to 12 hours per week.

**Guided Notes:** Guided notes are required! These are notes you should print and complete using your text. After the first day of class, these notes will be posted in UNM Learn or your instructor may upload them in the Document Sharing folder in MML. Completed notes will be due before you start the MML homework. Embedded in the Guided Notes will be the password to open the corresponding homework in MML. You must turn in Guided Notes that are legible and in the correct orientation to Bb Learn. Your score on each will be out of **10 points.** 

MyMathLab Homework: Online homework is assigned nearly every week based on the units in the course outline. Weekly assignments in MyMathLab must be completed not later than the indicated date in MML. Your score on each will be out of 10 points. You will complete the Guided Notes and the MML homework for each unit before taking the unit quiz. For those you need to complete, linked to many questions are Skill Builder problems. If you are struggling with a particular problem, the program will direct you to simpler problems to practice, helping pinpoint where you are having difficulty. Be sure to work the Skill Builder problems linked to those you struggle with. You will need to score a 90% or better on the Computational Assignment before the Unit Quiz will open.

**Quizzes:** There is a Quiz for each unit and there are target deadlines and required deadlines for each unit. The target deadlines are ones you should try to maintain to finish more than one course during the semester. The required deadlines will allow you to complete the course you are currently registered in.

Quizzes in MML

- The online quiz for a unit in MML will not open until you have scored 90% or better on the corresponding homework.
- If you are ready to attempt a unit quiz before the required deadline, you may do so in MyMathLab. The quiz in MML is timed. If you score 85% or better on that quiz, you can continue to the next unit.

Written, in-class quizzes:

- If you have not completed the online quiz by the required deadline, or, if you did not score 85% or better in the online quiz, you will take a written quiz in class.
- You will take the unit quiz on the required deadline whether or not you have completed
  the homework assignments for that unit. Pay attention to the deadlines and do not
  delay working on the assignments for each unit.

Sometimes MML will count a problem incorrectly because you do not enter the answer in the form the program wants or for some other reason not immediately apparent. I will check your progress before each class meeting and will review your unit quizzes to see if you can receive some points back. If you complete a Quiz and your score is close to 85%, tell me and I will look at it sooner rather than later.

**Projects:** Projects are required! During the semester, A project for each course will be assigned. You can work with each other on these projects, but you must submit YOUR work. Your score on each will be out of **10 points.** 

**Final Exam:** The final is a departmental exam that will test you overall, or nearly all, of the learning objectives for this course. You will be given a formula sheet for the final and you can use a calculator. You are allowed to take the final **only once**. The final exam will be 20% of your overall course grade.

# NOTES TO STUDENTS ABOUT PARTICIPATION IN A COURSE USING UNM LEARN: Tracking Course Activity

UNM Learn automatically records all students' activities including your first and last access to the course, the pages you have accessed, the number of discussion messages you have read and sent, web conferencing, discussion text, and posted discussion topics. This data can be accessed by the instructor to evaluate class participation and to identify students having difficulty

# **Submitting Assignments**

All written work is to be saved with the student's first name and last initial\_unit number assignment. It is to be submitted as an attachment through Blackboard Learn.

Example: ChavezE unit1 hw

When you submit an assignment via UNM Learn, you will receive an email receipt of your submission from *do-not-reply@learn.unm.edu*. Save this email as confirmation of your submission.

#### **GRADING PROCEDURES**

Include a detailed statement of

Grades will be updated twice a week.

Grades will be calculated using the following percentages

#### **COURSE AVERAGES:**

Total	100%
Cumulative Final Exam*	20%
Projects (One in each course)	15%
Quizzes	20%
MyMathLab Homework	15%
Guided Notes	20%
Participation and Progress	10%

<sup>\*</sup>You must score at least a 70% on the final exam and have a course average of 70% or better to earn a passing grade in the course.

Letter Grade	Final Exam score AND Course Weighted Average
Α	70% or better <b>AND</b> 90% or better
В	70% or better <b>AND</b> 80% to 89%
С	70% or better <b>AND</b> 70% to 79%
CR	70% or better <b>AND</b> 70% or better
NC	Any AND 69% or less

#### **UNM POLICIES**

#### **Equal Opportunity and Non-Discrimination**

To meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the <u>Department of Education</u><sup>5</sup> (see pg. 15). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct, and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the <u>Office of Equal Opportunity</u><sup>6</sup>. Read more about UNM policy regarding sexual misconduct.

<sup>&</sup>lt;sup>5</sup> https://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf

<sup>&</sup>lt;sup>6</sup> http://oeo.unm.edu/

<sup>&</sup>lt;sup>7</sup> https://policy.unm.edu/university-policies/2000/2740.html

# **Copyright Issues**

All materials in this course fall under copyright laws and should not be downloaded, distributed, or used by students for any purpose outside this course.

The UNM Copyright Guide has additional helpful information on this topic.

# **Accessibility and Accommodations**

The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodations of their disabilities. If you have a disability requiring an accommodation, please contact:

- <u>UNM-Valencia Student Services</u><sup>9</sup> if you are a Valencia campus student. The phone number is 505-925-8560
- <u>UNM Accessibility Resource Center<sup>10</sup></u> in 2021 Mesa Vista Hall if you are a main campus student. The phone number is 505-277-3506.

Information about your disability is confidential and your instructor cannot refer you for accommodations. Be aware that you will need to provide documentation. If you need assistance in obtaining documentation, the offices above can assist you.

# **Accessibility Statements**

<u>Blackboard's Accessibility statement<sup>11</sup></u> Microsoft's Accessibility statement<sup>12</sup>

Include links to accessibility statements for all other technologies included in the course.

# **Academic Integrity**

You should be familiar with UNM's Policy on Academic Dishonesty<sup>13</sup> and the Student Code of Conduct<sup>14</sup> which outlines academic misconduct defined as plagiarism, cheating, fabrication, or facilitating any such act.

## **Drop Policy:**

Here are the reasons I **may** drop you from the class:

- If you are not registered in MML and completing assignments by the end of the first week you are in the class.
- If you miss completing the start here section in Blackboard Learn by the end of the second week.

You will be dropped if you do not complete, sign and turn in the course contract found in the Start Here Module by the due date.

UNM Policies: This course falls under all UNM policies for the last day to drop courses, etc. Please see or the UNM Course Catalog for information on UNM services and policies. Please

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<sup>8</sup> https://copyright.unm.edu/

<sup>&</sup>lt;sup>9</sup> http://valencia.unm.edu/students/student-services.html

<sup>10</sup> https://arc.unm.edu/

<sup>&</sup>lt;sup>11</sup> https://www.blackboard.com/blackboard-accessibility-commitment

<sup>12</sup> https://www.microsoft.com/en-us/accessibility/

<sup>&</sup>lt;sup>13</sup> https://pathfinder.unm.edu/campus-policies/academic-dishonesty.html

<sup>14 &</sup>lt;a href="https://pathfinder.unm.edu/code-of-conduct.html">https://pathfinder.unm.edu/code-of-conduct.html</a>

see the UNM academic calendar for course dates, the last day to drop courses without penalty, and for financial disenroll dates.

#### **UNM RESOURCES**

- <u>UNM Valencia Campus Tutoring Services</u> 15
- UNM Main Campus CAPS Tutoring Services 16
- UNM-Valencia Library 17
- UNM Libraries 18
- "Life" Resources available to UNM-Valencia Students 19
- Student Health & Counseling (SHAC) Online Services<sup>20</sup>

#### FOR MILITARY-CONNECTED STUDENTS

There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on the main campus at 505-277-3181, or by email at vrc@unm.edu. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

#### SEMESTER DEADLINES

# Spring 2021 – 16-week classes (deadlines will be different for first and second 8-week classes)

- Monday, June 7th: First day of class, classes available in Blackboard Learn
- June 18th, by 5:00 PM: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- June 18th: Last day to drop without "W" grade and with 100% refund on LoboWEB
- July 5th Off-4th of July Weekend
- July 16th: Last day to drop without Dean's permission on LoboWEB. Will receive a "W" grade and will be responsible for tuition for the course.
- July 30th: Last day to add sections and/or change credit hours with form, last day to drop with Dean's permission. Will receive a "W" grade and will be responsible for tuition for the course.
- July 31<sup>th</sup>; Finals week. All final exams are given remotely.

## Course Schedule

<sup>&</sup>lt;sup>15</sup> http://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html

<sup>&</sup>lt;sup>16</sup> http://caps.unm.edu/services/online-tutoring/olc.php

<sup>&</sup>lt;sup>17</sup> http://valencia.unm.edu/library/index.html

<sup>&</sup>lt;sup>18</sup> https://library.unm.edu/

<sup>19</sup> http://valencia.unm.edu/students/student-resources.html

<sup>&</sup>lt;sup>20</sup> https://shac.unm.edu/